

In the Claims

1-49 (Canceled).

50 (New). A recombinant, purified or isolated polynucleotide comprising:

- a) at least 500 consecutive nucleotides of SEQ ID NO: 179;
- b) SEQ ID NO: 179;
- c) a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146;
- d) a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a

complementary span of nucleotides to said contiguous span of nucleotide positions;

- e) a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:
 - i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
 - ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
 - iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034; 18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703; 34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783; 47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440; 50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468; 51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282; 52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389; 53511; 53600; 53665; 53815; 54365; or 54541; or
- f) a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in a), b), or c).

51 (New). A vector comprising a polynucleotide:

- a) comprising at least 500 consecutive nucleotides of SEQ ID NO: 179;
- b) comprising SEQ ID NO: 179;
- c) comprising a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572,

3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146;

- d) comprising a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a complementary span of nucleotides to said contiguous span of nucleotide positions;
- e) comprising a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:
 - i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
 - ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
 - iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034;

18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703;
34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783;
47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440;
50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468;
51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282;
52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389;
53511; 53600; 53665; 53815; 54365; or 54541; or

f) comprising a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in a), b), or c).

52 (New). A host cell comprising:

1) a polynucleotide comprising:

- a) at least 500 consecutive nucleotides of SEQ ID NO: 179;
- b) SEQ ID NO: 179;
- c) a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146;
- d) a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302,

14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a complementary span of nucleotides to said contiguous span of nucleotide positions;

- e) a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:
 - i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
 - ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
 - iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034; 18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703; 34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783; 47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440; 50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468; 51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282; 52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389; 53511; 53600; 53665; 53815; 54365; or 54541; or
- f) a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in a), b), or c); or

2) a vector comprising a polynucleotide:

- a) comprising at least 500 consecutive nucleotides of SEQ ID NO: 179;

- b) comprising SEQ ID NO: 179;
- c) comprising a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146;
- d) comprising a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a complementary span of nucleotides to said contiguous span of nucleotide positions;
- e) comprising a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:

- i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
- ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
- iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034; 18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703; 34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783; 47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440; 50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468; 51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282; 52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389; 53511; 53600; 53665; 53815; 54365; or 54541; or
- f) comprising a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in a), b), or c).

53 (New). A nonhuman host animal or mammal comprising:

1) a polynucleotide comprising:

- a) at least 500 consecutive nucleotides of SEQ ID NO: 179;
- b) SEQ ID NO: 179;
- c) a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-

47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146;

- d) a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a complementary span of nucleotides to said contiguous span of nucleotide positions;
- e) a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:
 - i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
 - ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
 - iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034; 18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703; 34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783; 47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440; 50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468; 51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282; 52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389;

53511; 53600; 53665; 53815; 54365; or 54541; or

- f) a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in a), b), or c); or

2) a vector comprising a polynucleotide:

- a) comprising at least 500 consecutive nucleotides of SEQ ID NO: 179;
- b) comprising SEQ ID NO: 179;
- c) comprising a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146;
- d) comprising a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a complementary span of nucleotides to said contiguous span of nucleotide positions;

- e) comprising a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:
 - i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
 - ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
 - iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034; 18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703; 34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783; 47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440; 50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468; 51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282; 52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389; 53511; 53600; 53665; 53815; 54365; or 54541; or
- f) comprising a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in a), b), or c).

54 (New). A mammalian host cell comprising a PG1 gene of SEQ ID NO: 179, wherein said PG1 gene has been disrupted by homologous recombination with a knock out vector.

55 (New). A nonhuman host mammal comprising a PG1 gene of SEQ ID NO: 179, wherein said PG1 gene has been disrupted by homologous recombination with a knock out vector.

56 (New). The isolated, purified, or recombinant polynucleotide of claim 50, further comprising a label.

57 (New). The isolated, purified, or recombinant polynucleotide of claim 50, wherein said polynucleotide is attached to a solid support.

58 (New). A random or addressable array of polynucleotides comprising at least one polynucleotide according to claim 50.

59 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is at least 500 consecutive nucleotides of SEQ ID NO: 179.

60 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is SEQ ID NO: 179.

61 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is a contiguous span of at least 12, 15, 18, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 150, 200, or 500 nucleotides of SEQ ID NO: 179, wherein said contiguous span comprises at least 1 of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776, 30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, or 55666-56146.

62 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is a contiguous span of the following nucleotide positions of SEQ ID NO: 179: 1-2324, 2852-2936, 3204-3249, 3456-3572, 3899-4996, 5028-6086, 6310-8710, 9136-11170, 11534-12104, 12733-13163, 13206-14150, 14191-14302, 14338-14359, 14788-15589, 16050-16409, 16440-21718, 21959-22007, 22086-23057, 23488-23712, 23832-24099, 24165-24376, 24429-24568, 24607-25096, 25127-25269, 25300-27576, 27612-29217, 29415-30776,

30807-30986, 31628-32658, 32699-36324, 36772-39149, 39184-40269, 40580-40683, 40844-41048, 41271-43539, 43570-47024, 47510-48065, 48192-49692, 49723-50174, 52626-53599, 54516-55209, 55666-56146 or a complementary span of nucleotides to said contiguous span of nucleotide positions.

63 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is a contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179 or a contiguous span of nucleotides that is complementary to said contiguous span of nucleotides selected from a group nucleotide sequences spanning from position N-X to position N+Y of SEQ ID NO: 179, wherein:

- i) X is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30;
- ii) Y is equal to 8, 10, 12, 15, 20, 25, or a range of 8 to 30; and
- iii) N is equal to one of the following values: 2159; 2443; 4452; 5733; 8438; 11843; 1983; 12080; 12221; 12947; 13147; 13194; 13310; 13342; 13367; 13594; 13680; 13902; 16231; 16388; 17608; 18034; 18290; 18786; 22835; 22872; 25183; 25192; 25614; 26911; 32703; 34491; 34756; 34934; 5160; 39897; 40598; 40816; 40947; 45783; 47929; 48206; 48207; 49282; 50037; 50054; 50101; 50220; 50440; 50562; 50653; 50660; 50745; 50885; 51249; 51333; 51435; 51468; 51515; 51557; 51566; 51632; 51666; 52016; 52096; 52151; 52282; 52348; 52410; 52580; 52712; 52772; 52860; 53092; 53272; 53389; 53511; 53600; 53665; 53815; 54365; or 54541.

64 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in claim 60.

65 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in claim 61.

66 (New). The isolated, purified, or recombinant polynucleotide according to claim 50, wherein said polynucleotide is a polynucleotide of at least 500 consecutive nucleotides that is complementary to a polynucleotide as set forth in claim 62.